



CARSON MS-100 Biological Microscope Instruction Manual

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CARSON[®]

CARSON MS-100 Biological Microscope



PARTS NAMES

Standard Included A
10x Wide Field Eyepiece
& Blue Color Filter

Condenser Height K
(on left side, not shown)

**Objective Lens
Turret**

Slide Clip

**Mechanical
Stage**

Condenser

**Diaphragm
With Iris Control**

Filter Holder

Light Source

Base

Eyepiece

**360°
Rotatable
Draw Tube**

**Coarse Focus
Knob**

**Fine Focus
Knob**

**Power Port
(on rear side)**

Stage Knob

Power Switch

Light Intensity Knob

Quick-Start Guide

1. Place microscope on a secure surface.
2. Insert the first end of the power cord into the microscope's power port on the rear bottom side of the microscope, and plug the opposite end of the power cord into any standard 110V outlet.
3. Gently place the narrow end of the eye piece into the drawtube.
4. Turn on the light source by turning the power switch to the on position.
5. Rotate the objective lens turret so that the first objective lens (10x labeled by a yellow line) is perpendicular to the stage.
6. Position your desired slide on the mechanical stage and secure with a slide clip. Use the stage knobs for front-back (top knob) and left-right motion (lower knob) until your area of interest is located in the center of the stage.
7. Focusing
 1. Look into the eyepiece and you should see a white field image.
 2. Gently adjust the focus knob until the image of the specimen comes into a crisp focus.

Adjust light intensity on light sources to achieve best image.

CAUTION: Always take care when focusing, so that the objective lens does not collide down on the specimen, as you may cause damage to objective lens and/or specimen.

3. Adjust the light intensity and/or the iris of the diaphragm as needed to achieve maximum contrast.

CAUTION: The condenser should ideally be located with 1-3 millimeters of the bottom of specimen slide.

The height can be adjusted using condenser height knob. Be careful when adjusting that the condenser does not collide with the specimen, as you may cause damage to condenser and/or specimen.

8. **Magnification:**

1. To change magnification, rotate the objective lens turret so that the desired objective lens is perpendicular to the stage. Refocus as needed.
 2. The 100x objective is only designed for oil immersion microscopy, wherein the specimen and objective lens are coated with immersion oils (not included).
9. Color filters may be used to enhance contrast, especially if using stained slides. To use the included blue color filter, rotate the filter holder (located under the diaphragm) outwards, place the filter flat inside the top part of the holder and then fully rotate the filter holder back into position.

Care & Maintenance

- Please take care when using our microscope. Try to avoid bringing your microscope into contact with any dirt, debris, dust or moisture. Place the dust cover over the microscope when not in use.
- **Cleaning:**
 - For microscope body, unplug power and use a soft slightly damp cloth to clean dust or dirt.
 - For optical surfaces, such as the eyepiece lens or objective lens, use a slightly damp microfiber cloth or Carson's Lens Cleaners to gently remove dust or debris.
- When not in use for long periods, it is best to store your microscope in original container.
- When moving the microscope, hold by the metal neck or base of the microscope body. Do not hold by the eyepiece lens, draw tube, or objective turret.
- If the focusing or mechanical stage motion becomes stiff and hard to move, these mechanical sliding portions on the focusing track or the stage may be lubricated by using one or two drops of included oil.

Carson MS-100 Microscope Specifications

- Monocular Inclined Tube 45°, Rotatable 360°
- **Total Magnification:** 40X-400X
- Coaxial Coarse and Fine Adjustment Knobs
- **Eyepieces:** WF10X
- **Objectives:** 10X, 40X, 100X OIL
- **Working Stage:** Double Layer Mechanical Stage, 115 mm x 125 mm
- NA1.25 Abbe Condenser, with Iris Diaphragm and Filter Holder
- **Illumination:** LED Electrical Illumination

Documents / Resources



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